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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,176

04/15/2004

Yi-Ming Chen

084261-000000US

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05/03/2006

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EXAMINER

KIANNI, KAVEH C

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/826,176

Applicant(s)

CHEN ET AL.

Examiner

Kianni C. Kaveh

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: Multiple first Terminals are not labeled in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 and 12 recites the limitation 'the specific area'. There is insufficient antecedent basis for this limitation in the claim. Correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Pommer et al. (US 20030201462).

Regarding claims 1 and 10, Pommer teaches an array optical subassembly for an array optical active (shown in at least fig. 5) component, comprising: a substrate 17 having two opposite surfaces, wherein multiple metal pads, multiple metal lines and alignment keys are formed on the other surface (see parag. 0141); at least one optical active component 20 deposited on the substrate 17, wherein the at least one optical active component has a multiple source array 12 corresponding to the lens array of the substrate 17 (see parag. 0316 for corresponding lens array), multiple first terminals corresponding to the metal pads (see fig. 4d and 4a-b and 5, items terminals corresponding to the metal pads), and alignment keys corresponding to the alignment keys of the substrate (0142); a driver IC connected on the substrate (0140), wherein the driver IC has multiple second terminals corresponding to the metal pads (0141);

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a circuit board (see the board/circuit-substrate carrying OE 37; also item PC bard having OE 203) connected on the substrate 17, wherein the circuit board has multiple third terminals corresponding to the metal pads (shown in at least figures 10, 11, also 12, see also OS 37 with metal pads/lines 21 and 203); and a cover covering the substrate, the at least one optical active component, the driver IC and the circuit board (shown at least in fig. 21, item 105; also see at least 0291 and 0293);

a base connected between the cover of the array optical assembly and the circuit board (see at least fig. 23, item 105);

and a main circuit board electronically connected to the circuit board (shown in at least fig. 23, item 250).

However, in the above embodiment Pommer does not specifically state wherein a lens array is formed on one surface of the substrate. This limitation is taught by Pommer in another embodiment (see at least parag. 0316). Thus, it would have been obvious to a person of ordinary skill in the art when then invention was made to modify and/or combine different embodiment of Pommer in order to produce an array subassembly that includes the above limitations since such opt electrical assembly would provide precise alignment and efficient optical coupling (see 0002).

Regarding claims 2-9 and 11-20, Pommer further teaches wherein the specific area of the substrate is made of transparent material and the metal pads include first metal pads, second metal pads and third metal pads; wherein the first metal pads are respectively connected to the first terminals; the second metal pads are respectively

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connected to the second terminals; and the third metal pads are respectively connected to the third terminals (shown in at least fig. 1 and 14, items J1, J2, J3 and J4 wherein the substrate is transparent see at least abstract); wherein the source array of the at least one optical active component is composed of lasers/detectors (0075); wherein the circuit board is flexible 60; wherein the cover is a semi-airtight type or airtight type (shown in at least fig. 23 item cover being 'air tight'); wherein each source array and each lens array respectively has one optical axis and the optical axes of the source array and lens array are parallel (shown in at least fig. 23 wherein the light through fibers focused through lenses and through lasers/detectors all having a parallel axis); a connecting set having two opposite holes and the surface forming the lens array further forms two opposite guide rods, wherein the two opposite rods are respectively inserted to the two opposite holes (shown in at least fig. 23, items 72); wherein the connecting set further defines one recess for retaining a fiber connector with an optical fiber array, wherein the optical fiber array has one optical axis which is parallel with the optical axis of each lens array (see at least fig. 23 recess containing the fibers); wherein the base is L-shaped and has a vertical portion and a horizontal portion; wherein the vertical portion is defined with a through hole wherein the cover is retained in the through hole (see at least fig. 6, item 60 with holes connecting to a cover); a heat sink, which is mounted on the horizontal portion of the base (see at least figures 13E and 14; also 0271 and 0316).

Citation of Relevant Prior Art

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

US 20040022487 A1 Nagasaka, Kimio et al. Teach at least claims 1 and 10

US 20020105699 A1 Miracky, Robert F. et al.

US 6690845 B1 Yoshimura; Tetsuzo et al.

US 6636653 B2 Miracky; Robert F. et al.

These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Cyrus Kianni whose telephone number is (571) 272-2417.

The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 6:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font, can be reached at (571) 272-2415.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for formal communications intended for entry)

or:

Hand delivered responses should be brought to Crystal Plaza 4, 2021 South Clark Place, Arlington, VA., Fourth Floor (Receptionist).

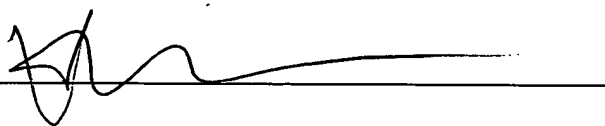
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Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

K. Cyrus Kianni
Primary Patent Examiner
Group Art Unit 2883

KAVEH KIANNI
PRIMARY EXAMINER

April 24, 2006

A handwritten signature in black ink, appearing to be 'K. Kianni', is written over a horizontal line that spans the width of the page. The signature is stylized with a large initial 'K' and a trailing flourish.